

What Is Claimed Is:

1. A method for regulating a supercharge of an internal combustion engine, comprising:

5 generating a manipulated variable from a deviation between a setpoint value of an operating parameter of the internal combustion engine and an actual value of the operating parameter, the manipulated variable having at least one integral component supplied by an integral action controller;

10 specifying at least one limit value for the integral component, the at least one limit value being determined from a plurality of operating parameters of the internal combustion engine; and

15 adapting the at least one limit value by adaptively determining a first operating parameter of the plurality of operating parameters as a function of a second operating parameter.

20 2. The method of claim 1, wherein the first operating parameter is determined from a base value which depends on at least a third operating parameter of the internal combustion engine and a correction value superimposed thereon, the correction value being adaptively determined as a function of 25 the second operating parameter.

3. The method of claim 2, further comprising:

30 incrementally decreasing the adapted correction value when the deviation is less than a threshold value and the integral component is less than a current value of the at least one limit value; and

35 incrementally increasing the adapted correction value when the deviation is greater than zero and the integral component is one of greater than or equal to the current value of the at least one limit value.

4. The method of claim 3, wherein the adapted correction value is not incrementally decreased unless the engine is operating at full load and the current value of the at least one limit value of the integral component is not at a lower threshold of the manipulated variable.

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10 5. The method of claim 3, wherein the adapted correction value is not incrementally increased unless the current value of the at least one limit value of the integral component is not at an upper threshold of the manipulated variable.

15 6. The method of claim 1, wherein a fixed quantity which is approximately 0-5% of an upper threshold of the manipulated variable is added to the at least one limit value.

7. The method of claim 3, further comprising:

delaying at least one of the incremental increase and decrease of the adapted correction value by a debouncing time after conditions for at least one of the incremental increase and decrease of the adapted correction value are met.

20 8. The method of claim 7, wherein the debouncing time for the decrease of the adapted correction value is a fixed, predetermined value, and wherein the debouncing time for the increase of the adapted correction value is obtained from a characteristic curve which is a function of the second operating parameter.

25 9. The method of claim 2, further comprising:

30 limiting, to a maximum value, jumps in the adapted correction value in a negative direction that occur during a change from a first range of the second operating parameter to a second range of the second operating parameter; and

35 removing the maximum value directly after a charge pressure action controller is activated.

10. The method of claim 2, wherein the correction value is derived from characteristic maps as a function of the second operating parameter and a variable which characterizes instantaneous conditions of the internal combustion engine.